

AMENDMENTS TO THE CLAIMS

Claims 1-9 (Canceled).

10. (Currently amended) : A method of amplifying optical signals, comprising:

transmitting a first optical signal from a first bidirectional port of a first coupler to a first unidirectional port of a second coupler connected to the first coupler by a delay element;

transmitting the first optical signal from the first unidirectional port through an amplifier to a second unidirectional port of the second coupler; and

transmitting the first optical signal from the second unidirectional port to a second bidirectional port of the first coupler.

11. (Canceled) : The method of Claim 10, wherein the step of transmitting the first optical signal from the first bidirectional port to the first unidirectional port further comprises delaying the first optical signal and wherein the step of transmitting the first optical signal from the second unidirectional port to the second bidirectional port further comprises delaying the first optical signal.

12. (Canceled) : The method of Claim 10, wherein the step of transmitting the first optical signal from the first bidirectional port to the first unidirectional port further comprises filtering out the first optical signal and wherein the step of transmitting the first optical signal from the second unidirectional port to the second bidirectional port further comprises filtering out the first optical signal.

13. (Currently amended) : The method of Claim 10, further comprising:

transmitting a second optical signal from a second bidirectional port of the first coupler to the first unidirectional port;

transmitting [[a]] the second optical signal from the first unidirectional port through the amplifier to the second unidirectional port; and

transmitting the second optical signal from the second unidirectional port to the first bidirectional port.

14. (Previously presented) : The method of Claim 10, wherein the first optical signal is at a first wavelength.

15. (Previously presented) : The method of Claim 13, wherein the second optical signal is at a second wavelength.

16. (Currently amended) : A method of amplifying optical signals, comprising:

transmitting a first optical signal from at least one of first and second bidirectional ports of a first coupler to a first unidirectional port of a second coupler connected to the first coupler by a delay element;

transmitting the first optical signal from the first unidirectional port through an amplifier to a second unidirectional port of the second coupler; and

transmitting the first optical signal from the second unidirectional port to the at least one of first and second bidirectional ports.

17. (Canceled) : The method of Claim 16, wherein the step of transmitting the first optical signal from the first bidirectional port to the first unidirectional port further comprises delaying the first optical signal and wherein the step of transmitting the first optical signal from the second unidirectional port to the second bidirectional port further comprises delaying the first optical signal.

18. (Canceled) : The method of Claim 16, wherein the step of transmitting a first optical signal from at least one of first and second bidirectional ports to a first unidirectional port further comprises filtering out the first optical signal and wherein the step of transmitting the first optical signal from the second unidirectional port to at least one of the first and second bidirectional ports further comprises filtering out the first optical signal.

19. (Currently amended) : The method of Claim 16, further comprising:

transmitting a second optical signal from at least one of the first and second bidirectional ports to the first unidirectional port;

transmitting [[a]] the second optical signal from the first unidirectional port through the amplifier to the second unidirectional port; and

transmitting the second optical signal from the second unidirectional port to at least one of the first and second bidirectional ports.

20. (Previously presented) : The method of Claim 16, wherein the first optical signal is at a first wavelength.

21. (Previously presented) : The method of Claim 19, wherein the second optical signal is at a second wavelength.

22. (Canceled) : The method of Claim 16, further comprising:

transmitting a second optical signal from the at least one of first and second bidirectional ports to the first unidirectional port; and

transmitting the second optical signal from the second unidirectional port to the at least one of first and second bidirectional ports.

23. (Canceled) : The method of Claim 16, wherein the step of transmitting the second optical signal from the at least one of first and second bidirectional ports to the first unidirectional port further comprises delaying the second optical signal and wherein the step of transmitting the second optical signal from the second unidirectional port to the at least one of first and second bidirectional ports further comprises delaying the second optical signal.

24. (Canceled) : The method of Claim 22, wherein the step of transmitting the second optical signal from the at least one of first and second bidirectional ports to the first unidirectional port further comprises filtering out the second optical signal and wherein the step of transmitting the second optical signal from the second unidirectional port to the at least one of first and second bidirectional ports further comprises filtering out the second optical signal.

25. (Currently amended) : An optical router, comprising:

a first bidirectional port coupled to a first unidirectional port;

a delay element coupled to the first bidirectional port and the first unidirectional port;

an amplifier coupled to the first unidirectional port and a second unidirectional port; and

a second bidirectional port coupled to the second unidirectional port.

26. (Canceled) : The optical router of Claim 25, further comprising:

a first delay device coupled to the first bidirectional port and the first unidirectional port; and

a second delay device coupled to the second bidirectional port and the second unidirectional port.

27. (Previously presented) : The optical router of Claim 25, further comprising:

a first optical coupler coupled to the first bidirectional port and the second bidirectional port; and
a second optical coupler coupled to the first unidirectional port and the second unidirectional port.

28. (Previously presented) : The optical router of Claim 25, wherein the amplifier is a unidirectional amplifier.

29. (Canceled) : The optical router of Claim 27, wherein the first optical coupler is a first wavelength multiplex coupler and the second optical coupler is a second wavelength multiplex coupler.

30. (New) : The optical router of Claim 10, wherein the delay element comprises at least one pair of electrodes.

31. (New) : The optical router of Claim 10, wherein the first and second couplers are 3 dB couplers.

32. (New) : The optical router of Claim 10, wherein the delay element is a difference in distance ΔL indicating a real MZI difference between the first and second couplers.

33. (New) : The optical router of Claim 16, wherein the delay element comprises at least one pair of electrodes.

34. (New) : The optical router of Claim 16, wherein the first and second couplers are 3 dB couplers.

35. (New) : The optical router of Claim 16, wherein the delay element is a difference in distance ΔL indicating a real MZI difference between the first and second couplers.

36. (New) : The optical router of Claim 25, wherein the delay element comprises at least one pair of electrodes.

37. (New) : The optical router of Claim 27, wherein the first and second optical couplers are 3 dB couplers.

38. (New) : The optical router of Claim 25, wherein the delay element is a difference in distance ΔL indicating a real MZI difference between the first and second optical couplers.